Washington State Department of Health

Emergency Medical Services and Trauma Prevention

Southwest Region Emergency Medical Services and Trauma Care Council

Biennial Trauma System Plan, FY 2002-03

Office of Emergency Medical and Trauma Prevention Mission

To establish, promote and maintain a system of effective emergency medical and trauma care services. Such a system provides timely and appropriate delivery of emergency medical treatment for people with acute illness and traumatic injury, and recognizes the changing methods and environment for providing optimal emergency care throughout the state of Washington.

Southwest Region EMS & Trauma Care Council Mission

The mission of the Southwest Region EMS and Trauma Care Council is to develop a system that will optimize access for citizens and visitors in the Southwest Region of Washington State to appropriate and timely trauma and emergency medical care. This system should seek to minimize the human suffering and costs associated with preventable mortality and morbidity due to trauma and illness.

The Regional Council recognizes the changing methods and environment for providing optimal emergency care under the varied conditions throughout the Southwest Region.

The Regional Council is committed to excellence in health care.

INTRODUCTION

A. Summary of proposed changes within this Regional Plan which require specific Department approval*:* *(one page maximum)* Specify all requested changes contained within this Plan in the following areas: (1) recommended numbers of Department-approved verified prehospital services within the region; (2) recommended numbers and/or levels of Department-designed trauma services and/or rehabilitation services within the region; (3) current Department-approved regional Patient Care Procedures and/or County Operating Procedure appendices to current Department-approved regional Patient Care Procedures; (4) request(s) for Department approval of regional council-adopted higher-than-state minimum standard(s), for implementation within the region.

(1) None
(2) None
(3) Recently Council-adopted PCPs attached
(4) None

B. Executive Summary*: (two pages maximum)*

The Southwest Region EMS & Trauma Care Council is the forum for development of the regional trauma care and emergency medical systems. Since 1991 the Council, in its *Southwest Region Trauma System Development Plan*, has determined the goals and objectives for excellent trauma care in the Region. This seventh revision of the Plan continues the effort of the Council periodically to refine the trauma care and emergency medical systems and respond to its obligations to the Department of Health, Office of Emergency Medical and Trauma Prevention, Olympia Washington. This plan derives from the Council's consensus on how the Region should structure trauma and emergency medical care within the bounds of the most recent interpretations of RCW and WAC by the Office of Emergency Medical and Trauma Prevention.

Year 2000 US Census data shows that the population of all the Region's counties has grown remarkably over the past decade. Clark County achieved the greatest population growth among all Washington counties. The following table shows population growth based on preliminary Census data for each of the Region's counties.

County	Percent population increase
Clark	45.0
Cowlitz	13.2
Klickitat	15.3
Skamania	19.1
Pacific	11.1
Wahkiakum	14.9

Compared to 1990, the Region's Trauma and EMS providers are now caring for an additional 124,741 residents as well as an influx of tourists and part-year residents.

The Region's commitment to a cohesive system including improved public access, Emergency Medical Dispatch and prehospital response, and definitive care and rehabilitation remains unchanged. Continued experience with transport issues in the Region's more rural parts has led the Council to recommend including hospitals in neighboring regions and Oregon as appropriate destinations in some circumstances and to cooperate with the Central Region in helping agencies on the Region's eastern border to meet their needs.

The Region remains committed to prompt initial care and transport of major trauma patients to appropriate designated trauma centers by prehospital providers with trauma training. The Plan provides for effective interfacility transfer of major trauma patients to the highest level of trauma care appropriate for their injuries. The Council reaffirms the following goals, first set in 1991 and revised in subsequent Plan editions:

- Decrease the incidence of trauma in the Region through a well designed and appropriate injury prevention program
- Assure rapid and appropriate access to the regional trauma system through a region-wide 911 system
- Assure essential emergency medical dispatcher, prehospital, and hospital trauma care training
- Maintain specialized trauma verified first response and transport vehicles to respond to all major trauma incidents in the Region
- Recommend that a minimum of 6 and a maximum of 62 aid services be trauma verified; that a minimum of 6 and a maximum of 35 ambulance services be trauma verified; and that a minimum of 1 and a maximum of 2 helicopter ambulance services be trauma verified.

- Designate one Level II, one Level III, three Level IV, and up to two Level V trauma centers in the Region.
- Design and implement emergency medical dispatch (EMD) standards and develop standardized EMD training programs that incorporate activation of the trauma system.
- Assure optimal trauma care for trauma victims in the Region.
- Work with Oregon trauma providers to assure an appropriate transfer to higher care and appropriate rehabilitation services.
- Ensure rapid transportation of trauma patients, by trauma-verified ambulances and first response vehicles and/or air ambulance, to the appropriate health care facility.
- Revise and improve trauma-related prehospital, hospital, and transfer procedures.
- Revise and improve the Region's quality assessment and improvement program to monitor the regional system and to identify areas for improvement and research.
- Develop trauma stress teams that respond to trauma incidents and help victims and families of victims of trauma.
- Balance the cost of trauma care and the trauma system against the cost to society of failure to provide such a system.
- Work with Medical Program Directors to ensure that standards and recommendations in this Plan are enacted.
- Develop a regional oversight process to ensure that system changes proposed in the Region are consistent with this Plan.

In all cases, in its goals, objectives, and recommendations, this Plan considers the patient's needs as the primary criteria guiding the development of the Southwest Region's EMS and Trauma Care Systems. By ensuring the skilled transportation of the right trauma patient to the right trauma center at the right time, as well as effective inter-facility transfer and eventual rehabilitation, the Southwest Region strives to meet those needs.

ADMINISTRATIVE COMPONENTS

I. REGIONAL COUNCIL

A. Leadership The Council has initiated no change in either its leadership role or its relationships with other organizations within the region that are involved in providing information and/or services relating to the successful implementation and operation of the regional EMS and trauma care system. The Region elicits help from and offers assistance to Local Councils and provider agencies in developing, interpreting, and complying with the Regional Plan and Patient Care Procedures. The Regional Council's desire is to serve as a resource for consensus development among the partners in formulating a Regional Plan that reflects the best standards for serving the citizens of the Region. Council members and staff participate in Regional QAI activities sponsored by our Level II and III trauma facilities.

B. Council Operations: No problems with the internal operations of the Council require changes to the structure or staffing of the Council.

RCW 70.168.100 defines the responsibilities of Regional EMS/TC councils, including analysis, planning, and system design. The operations and structure of the Southwest Region EMS/TC Council are directed to fulfilling those responsibilities. The Regional Council, the composition of which is described above, has an Executive Committee, consisting of the Chair, Vice Chair, Secretary, and Treasurer. From its membership, the full Council establishes seven planning technical advisory committees (P-TACs) (sections of the RCW implemented by each P-TAC are listed in parentheses):

1. Budget and Finance P-TAC (RCW 70.168.100 (1) (f)
2. Communications P-TAC (RCW 70.168.100 (1) (i)
3. Hospital P-TAC (RCW 70.168.100 (1) (g)
4. Prehospital P-TAC (RCW 70.168.100 (1) (h)
5. Injury Prevention and Public Education P-TAC (RCW 70.168.100 (1) (i)
6. Training and Education P-TAC (RCW 70.168.100 (1) (b)
7. Technical Standards P-TAC (RCW 70.168.100 (1) (c).

Membership of each P-TAC is balanced from the constituencies represented on the Council in an effort to secure a wide scope of counsel. This plan is derived from a consensus effort of each P-TAC, with advice from the community and planning support from the Council staff. After completion of its section of the plan, each P-TAC submits the section to the full Council for discussion, modification, and adoption. All modifications of the currently approved plan are the result of this process.

The Council works with the area's education institutions and other professional and local organizations involved with activities addressed in the Plan, including:

- Washington State University (Vancouver)
- Clark College
- Linfield College
- Oregon Health Sciences University
- Northwest Regional Training Center
- Portland State University
- College of Emergency Medical Services

Council Staff

The Council employs a professional staff to process administrative matters related to its contract with OEMTP/DoH, serve as a contact point between the general community and the Council, help to implement the Council's programs, and provide research and planning assistance to the Council.

The staff consists of a full-time administrator, a full-time administrative assistant, a half-time bookkeeper, and a half-time injury prevention specialist.

II. SYSTEM DEVELOPMENT:

A. EMS/Trauma System Plan Development, Maintenance and Evaluation:

Provide a short statement of how the Region

1. Conducts needs assessments and identifies resources.

   From 1991 to 1995 the Council surveyed the Region annually to assess needs and resources. Survey techniques included written instruments completed by EMS agencies and site visits to 9-1-1 centers and health care facilities in the Region. Data on system performance came from the survey instruments. The quality of the early data suffered due to limited and inconsistent sampling of major trauma patients. Initial studies relied on multivariate regression analysis to develop a general picture of needs and performance. Since 1995, when trauma facilities were designated, hospitals have collected long-term data on major trauma patients and prehospital providers have adopted a standard data set.

   In late 1999 the Region developed a three-year cycle for major assessments and completed analysis of a comprehensive *Needs Assessment Survey* covering prehospital provider needs and resources for the first three-year period. These assessment instruments are available for completion on the Region's web site as well as by standard mail. Other data on major trauma patients is derived from CHARS, DOH, and the Washington Traffic Safety Commission.

2. Develops their EMS and trauma plan.

   The Regional Council addresses the needs and weighs the resources of the counties in the region to develop a comprehensive trauma plan. With staff assistance, the P-TACs (described above in section I, B) meet to set goals and objectives for the regional plan. After seeking advice from local EMS/TCs and the public, the Council reviews all planning before adoption of the plan and recommendation to DOH.

3. Implements the approved regional plan.

   The Council has no statutory power to enforce plan provisions, and relies on the consensus of its participants to drive plan implementation. To the extent that plan provisions meet statutory obligations, DOH has enforcement power. Thus, in matters of distribution and verification of prehospital services and designation of hospital services, DOH uses the plan as its guide. The Council views the democratic process in plan development and clear plan language as essential to encouraging general implementation of the plan.

   For each county in the region, the ease of implementing plan provisions depends on funding and resources, both generally more available in heavily populated counties. The burden of meeting the plan standards is more onerous to rural, sparsely populated counties with largely volunteer services. The Council has adopted a policy of supporting these counties in an effort to create less variation in standards of care in the Region.

Council staff will play an important role in distributing and clarifying the plan, giving advice and technical assistance to local EMS/TCs and agencies. The staff is also responsible for implementing the education and training components of the plan through contracts with Local EMS Councils and other outside contractors. The most recent *Needs Assessment Survey* provides the basis for training programs, including support for prehospital and hospital trauma training, in the first year of the next biennium. The Region has acquired a stock of training equipment and audiovisual material, as well as a van to transport the equipment.

Consultation and action with MPDs, hospital trauma coordinators, local agencies, and local EMS/TCCs will be essential in creating the Regional system. The Council recognizes the necessity of unifying the voices and actions of these participants in implementing the plan.

4. Reviews and evaluates how the plan is working.

   Annually, the Council and its P-TACs, county MPDs, local agencies and EMS/TCCs, and interested parties in the community join to review the plan and recommend changes. Council staff then includes these recommendations in a draft revision that, after review by the Council, is adopted. The Council also participates in the formal year-end review of the Trauma Plan by the EMS and Trauma Care Steering Committee.

   In addition to the annual review, the Council may submit to DOH changes to the plan at any time, and has developed a formal process for considering changes suggested by local agencies, EMS/TCs, or organizations. This process requires that plan changes suggested by licensed EMS or health care agencies regulated by DOH be reviewed by local EMS/TCs and the Regional Council before approval and submission to DOH for approval and implementation.

B Local government ordinances: Discuss any ***new*** local ordinances that may apply to the operation of local EMS/TC systems within the region. Discuss how these ordinances affect the future operation of local systems and their relationship to the regional EMS and trauma care system.

Since the last version of the Plan, no new local EMS ordinances are in effect.

C. Local System Development Costs: Specify components of local system development and project costs of implementation, including potential source(s) of funding for those local costs.

Plan Component	Cost
Training and OTEP	$179,000.00
Injury Prevention and Public Education	58,500.00
System Development, Support, Administration	67,000.00
Local Council Support	30,000.00
Special Programs	9,800.00
Total	$344,300.00

Most local system components are in place with adequate continuing funding. Budgets for public agencies in the Region are public record.

Funding sources for local system implementation include:

- DOH grants
- Corporate or private-sector grants
- Local EMS levies (capped at $0.50 per $1000.00 of property value)
- Special annual EMS levies

- Transit Authority revenue
- Household taxes
- Public Hospital and Fire Protection district taxes
- Direct charges to patients
- Volunteer fundraising activities

As costs of providing standardized EMS and Trauma care increase, more agencies, even those traditionally relying on volunteers, will rely on tax funding sources, which have generally supported more expensive, urban systems. The demands of communications and treatment technologies coupled with increasing difficulties in maintaining volunteer coverage drive this change. Recognizing prehospital care as a legitimate extension of activities normally associated with hospitals and physicians, some areas of the Region use Public Hospital District funding, even though no public hospitals exist.

Communities with tax bases inadequate to fund fully EMS systems will need to discover alternative sources of support. Last year, 47,000 private and corporate foundations gave nearly twenty-three billion dollars of assistance, over fifty percent of which went to health, human services, and education projects. The Council is committed to assisting the Region's agencies to identify and request funding from appropriate government (Fire Act), private, and corporate grantors. The foundation of successful grant applications includes the development of partnerships in the community and appropriate marketing of agencies. For its agencies, the Council will conduct formal education in developing successful partnerships and grant requests.

SYSTEM OPERATION COMPONENTS

III. INJURY PREVENTION AND PUBLIC INFORMATION/EDUCATION

Goal: The Southwest Regional Council's Injury Prevention and Public Education goal is to reduce preventable and premature death and disability due to traumatic injury in the Region.

A. IPPE Plans and Strategies: Utilizing both an EMS and a trauma focus, describe Regional Council plans and strategies to:

1. Heighten public awareness about injury prevention and control the EMS and trauma system:

Objective	Strategies
Support the development and/or growth of the five IPPE community based coalitions in each county of the Southwest Region.	1. Develop and deliver injury prevention public relations materials and IP programs for use by local/county coalitions every other month through on-site visits by IPPE Coordinator. 2. Contact local media partners within the Region (i.e. telephone contacts, e-mail, press releases, or Public Service Announcements) regarding scheduled IPPE programs and upcoming events. Invite media to any and or/all safety related events or programs. 3. Continue to distribute Region-wide IPPE materials for National EMS Week and other community health and safety events. 4. Distribute at least 600 bicycle safety helmets throughout the Region to help support local IP coalition efforts with the Regional Bicycle Safety Program for FY 02-03. 5. Secure one outside mini-grant in the amount of $1,000 dollars for one county based coalition in the SW Region for FY 02-03.

2. Develop and/or maintain a regional prevention/public education committee or network: Currently the Southwest Region's Injury Prevention and Public Education Program is supervised by the Southwest Region's Injury Prevention Subcommittee and staffed by a full-time Injury Prevention Coordinator (the IPPE coordinator position changed from a 0.5 FTE to a 1.0 FTE position in September of 2001). The IPPE Sub-committee meets bi-monthly. The Injury Prevention Coordinator attends and is an active member of the state Injury Prevention and Public Education Technical Advisory Committee (IPPE-TAC).

Objective	Strategies
Provide two mini grant funding sources for local providers who focus on DUI/Traffic Safety Projects or programs.	1. Mini grants are being awarded to help support local existing DUI/traffic safety programs through the Washington Traffic Safety Commission. 2. The hospital-based region wide Trauma Nurses Talk Tough program received $6,250.00 to continue in-school presentations to Junior and Senior High students. One presentation in each county is scheduled for FY 02-03, with a minimum of 200 students per presentation. 3. SWAY program received $2500 to help support a scholarship program for individuals/juveniles unable to participate due to financial hardship.
Educate coalitions groups and partners of new innovative programs and inform of significant regional injury problems that need to be addressed.	1. When requested, make presenta-tions and share with EMS agencies and IP Coalitions about IPPE programs & materials available for their local efforts.

	for their local efforts. 2. As needed and/or as funding allows, hold (1) IPPE training seminar on how to develop and implement IPPE programs, apply for funding, and evaluate programs. 3. Order new IP materials on a monthly basis to restock and maintain in-house Regional Library.
Identify at least three outside sources of funding for IPPE programs and activities.	1. Raise additional revenues through private/public ventures. 2. Identify grant funding sources or sponsors for the Region and other IPPE groups. 3. Submit and write at least 2 grants per year.
Encourage and support Injury Prevention as an essential mission of the Region through mini-grant support.	1. Maintain a full-time injury prevention coordinator. 2. Identify and work with existing IPPE programs and IPPE coalitions in the Region. 3. Work with local EMS Councils and other interested parties to maintain existing and develop new IPPE programs, making funding available to support those activities as requested and available.

4. Identify and prioritize significant regional injury problems and high-risk groups, based on data (specify data resources utilized):

Southwest Region Data Analysis

The tables below were summarized with data from 1995-1999 for the entire region. Data sources include:

- Comprehensive Hospital Abstract Reporting System (C.H.A.R.S.) by the Department of Health, Office of Hospital & Patient Data.
- Washington State Department of Health, Center for Health Statistics, Death Certificates.

In April 2001, the State Department of Health released data about significant injury and trauma problems in the state of Washington and the six counties that comprise the Southwest Region. Historically, individual county data has closely mirrored regional and national rankings. Table 1 shows the fatal and nonfatal injury rankings for the Southwest Region.

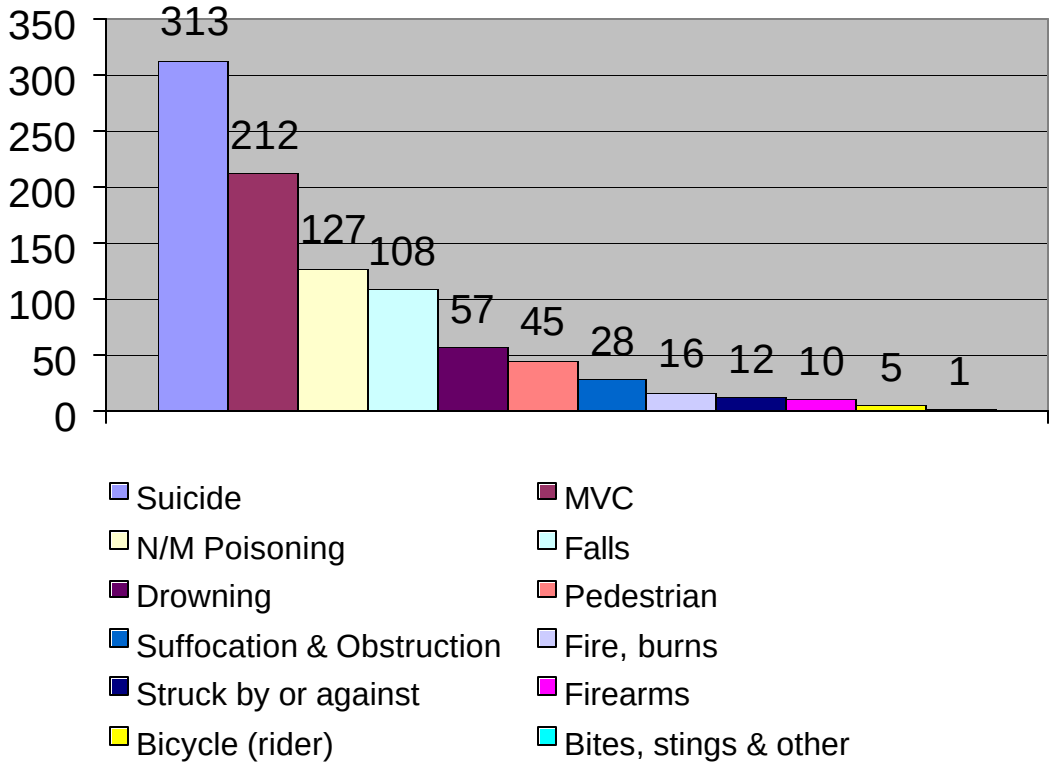
TABLE 1 Types of injuries in the Southwest Region, 1995 -1999

Fatal Injuries	Count	Rate/100,000
Suicide	313	14.2
Motor Vehicle (occupant)	212	9.6
Non-medical poisoning	127	5.8
Falls	108	4.9

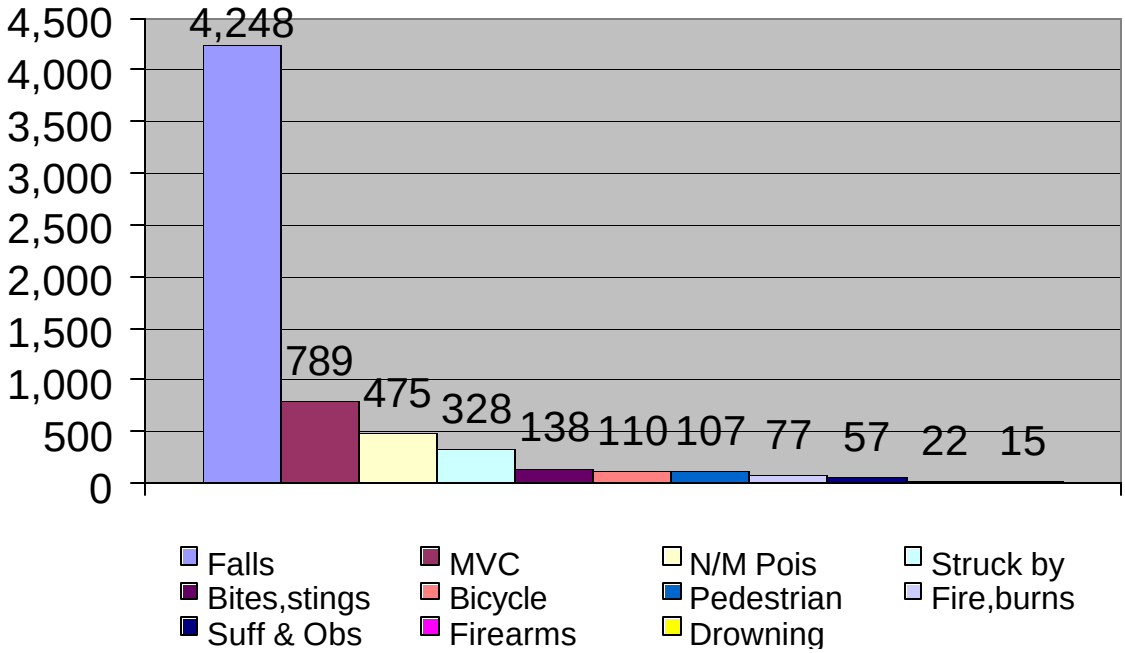
Drowning	57	2.6
Pedestrian	45	2.0
Suffocation and obstruction	28	1.3
Fire, Burns and related asphyxia	16	0.7
Struck by or against	12	0.5
Firearms	10	0.5
Bicycle (rider)	5	0.2
Bites, stings & other effect of animals	1	0.0
Total	**934**	

Non-Fatal Injuries	**Count**	**Rate/100,000**
Falls	4,248	193.3
Motor Vehicle (occupant)	789	35.9
Non-medical poisoning	475	21.6
Struck by or against	328	14.9
Bites, stings & other effect of animals	138	6.3
Bicycle (rider)	110	5.0
Pedestrian	107	4.9
Fire, Burns and related asphyxia	77	3.5
Suffocation and obstruction	57	2.6
Firearms	22	1.0
Drowning	15	0.7
Total	**6,213**	

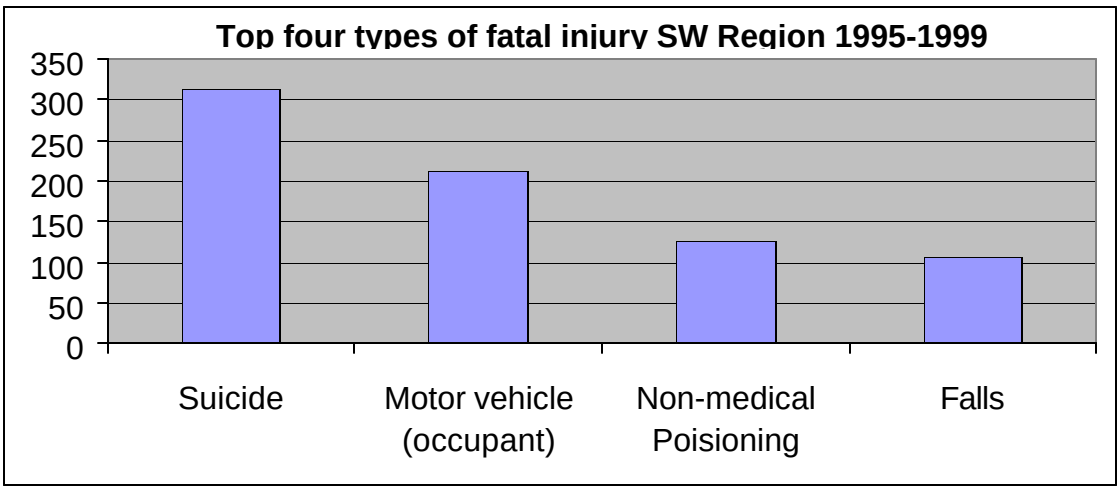
SW Region Fatal Injuries 1995-1999



SW Region Non-Fatal Injuries 1995-1999



The following 1995-1999 top four ranking injury categories represent 52-67% of the total injury count in the Southwest Region. Motor vehicle occupant has shown the largest on-going reduction in injuries and fatalities in the Southwest Region, in parallel with state and national trends. Frequency of falls and suicide or self-inflicted injuries have both continued to increase.



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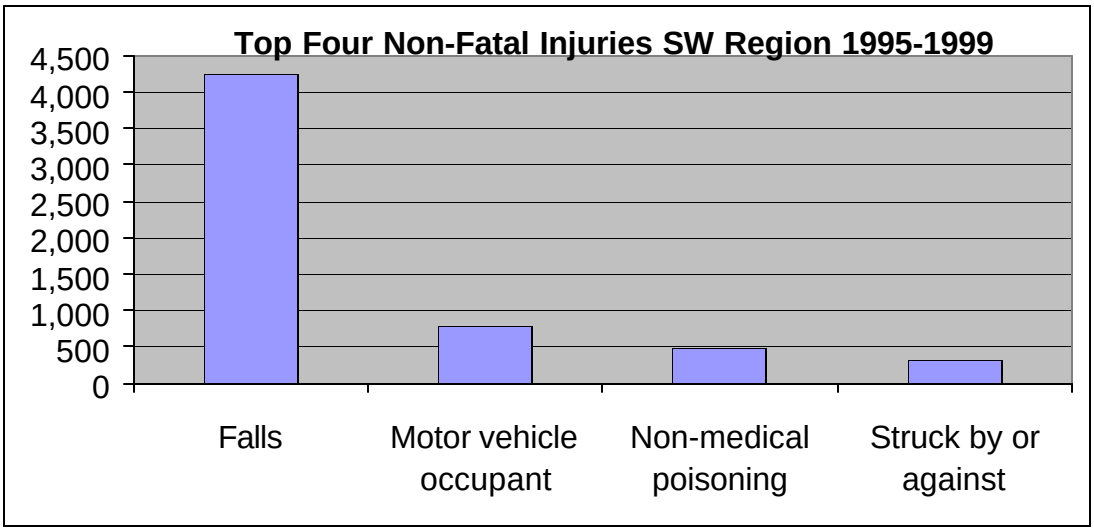


Non-Fatal Injuries	Count	Rate/100,000
Falls	4,248	193.3
Motor Vehicle (occupant)	789	35.9
Non-medical poisoning	475	21.6
Struck by or against	328	14.9

Additional mechanisms of injury were selected for review that fall outside the ranking of the top four causes discussed above. There was a reduction of bicycle (rider) incidents according to the latest data and is encouraging to see. The Southwest Region has been active in distributing and properly fitting hundreds of helmets per year to children since 1991. The award winning bicycle safety program "Bicycle Lids Save Kids" continues to be active region-wide through various EMS & Fire agencies, prevention coalitions, and educational methods. According to the Washington Traffic Safety Commission bicycle helmet use survey between (1994-1999), average bicycle helmet use is slowly increasing each year.

Table 4: Bicycle Helmet Use in Washington, 1994-1999 (percent use by county)

County	1994	1995	1996	1997	1998	5-yr. Avg.	**1999**
Clark	15.8%	37.5%	37.5%	39.0%	19.0%	30.5%	**61.5%**
Cowlitz	32.3%	20.2%	52.8%	32.9%	28.9%	31.7%	**32.5%**
Total (for 15 counties in survey)	39.5%	44.9%	47.1%	47.3%	48.7%	45.8%	**52.7%**

Source: Bicycle Helmet Use Observational Survey: 1994-1999. Washington Traffic Safety Commission.

5. Develop programs and/or partnerships to reach the public to change knowledge, attitudes, and/or behavior to reduce the risks of injury, include rationale for decisions:

Objective	Strategies
Display the Regional IP Booth in at least (10) public safety/health events in FY 02-03.	1. Maintain a shippable (by UPS or U.S. mail) injury prevention and public education booth/display board to be made for local IP activities. 2. Maintain a master calendar of health fairs and other IP public activities and make mobile display available. 3. Develop and distribute IP program materials for use by Region's health care and EMS providers.

B. IPPE Resources: Provide a description of available resources, partners, additional needs within the region, and potential barriers.

Strengths and Weaknesses: The Council budget for prevention is relatively small ($55,000.00/biennium), and this means that individual injury prevention program support is limited (operating costs, coordinator education, training, travel, office costs etc.) the majority of the IPPE budget is spent on salary costs. However, in order to support existing programs in recent years, fund-raising and grant writing have made it necessary to incur costs associated with supporting on-going programs region-wide. For example, in FY00/01 $17,750.00 dollars was secured with the help of local sponsors to help in-fray the costs of purchasing bicycle helmets for the Bicycle Lids Save Kids Campaign.

Partnering with local county injury prevention coalitions and DUI/Task forces is working out well to help strengthen injury prevention programs based on data driven information. The Region has supported the local injury prevention coalitions with bicycle safety helmets, mini-grants, program materials and videos. In FY 02-03 the Southwest Region prevention objectives and strategies will parallel with the three-year goal of the IPPE-TAC to reduce D.U.I. related fatalities across the State of Washington. Regional emphasis will be placed on programs that address the following:

- Motor Vehicle (occupant) safety programs, impaired driving, seat belts, and car seats.
- Continued coalition support and/or development of DUI, Falls, and Suicide prevention programs for underserved counties of the Southwest Region.
- Bicycle Safety to include helmet distribution and proper fitting for low income youth and families.
- Promoting and providing injury prevention programs, educational materials and resources through marketing efforts.

The three primary vehicles for addressing these issues will be through coalition building and support, outside mini-grant funding, and education.

Program	Organization	Target/Emphasis
Region-wide Injury Prevention & Public Education Programs		
Trauma Nurses Talk Tough	SW Washington Medical Center	Teens
Think First! Spinal Injury	SW Washington Medical Center	All ages
Tread to Safety	SW Washington Medical Center	Elderly
S.W.A.Y. (D.U.I. Program)	SW Washington Advocates for youth	Youth
Sober Roadways	SW Region EMS & TC Council	Drunk Drivers
Bicycle Helmet Safety	SW Region EMS & TC Council	Children
Clark County		
Bicycle Helmet Safety	Vancouver Police Department	Children
	American Medical Response	Children
	Clark Co. Bicycle Safety Coalition	Children
	Emanuel Hospital	All ages
	Clark Co. Public Safety Educators	All ages
	Safe Kids Coalition	All ages
Child Life Safety	Clark Co. Fire District 11	Young Children
Safe Kids Coalition	Clark Co. Regional EMS	All ages
Car seat Safety		
Water Safety		
Bicycle Safety		
Region-wide Health Fairs		
	Vancouver Fire	All ages
	Fair, White Salmon, WA	All ages
	Camas Fire	All ages
	Keep Kids Health y Fun Day	All ages
Cowlitz County		
Trauma Nurses Talk Tough	St. John Medical Center	Teens
Bicycle Helmet Safety	St. John Medical Center	Children
DUI Traffic Safety Program	Cowlitz Co. Sheriff's Dept.	All ages
Tread to Safety Program	Cowlitz Co. IPPE Coalition	Elderly
Safe Kids Coalition	Progress Center	All ages
Car Seat Safety		
Crib Safety/Recalls		
Smoke Alarm Safety		
Water Safety		
Choking & Suffocation		
Skamania County		
Trauma Nurses Talk Tough	Skyline Hospital	Teens
Bicycle Helmet Safety	Sheriffs Department	Children
Stevenson I.P. Coalition	Skamania Co. EMS	All ages
Tread to Safety	Skamania Co. EMS/Various Groups	Elderly
Klickitat County		
Trauma Nurses Talk Tough	Skyline Hospital	Teens
Bicycle Helmet Safety	Klickitat Valley Hospital/Ambulance	Children
Coalition Against Youth Trauma (CAYT)	Klickitat Valley Hospital	Teens
Trauma Nurses Talk Tough		Teens
Wahkiakum County		
Wahkiakum Co. IP Coalition	Wahkiakum Co. Public Health	
Boating Safety		All ages
Bicycle Safety		Children
Drowning Prevention		All ages

Pacific County

S. Pacific Co. IP Coalition	S. Pacific EMS Council	All ages
	Bicycle Safety Program	Children
	EMS Week promotion	All ages

Source: Baker 1997, Goodrich 2001

C. Activity Measurement: Provide specific objectives (i.e., measurable actions) and program/activity evaluation plans for the coming biennium.

Strategies listed above for IPPE objectives each contain performance criteria by which they can be evaluated. Analyzing the effects of Regional IPPE efforts on levels of death and injury is a complex task. The IPPE P-TAC will explore methods of analysis for determining the effects of the program. The goals and SMART objectives of each injury prevention program is specifically outlined in the IPPE FY 02 implementation plan as submitted to the Department of Health in October of 2001.

The Southwest Region Injury Prevention and Public Education objectives and strategies for FY 2002 (July 1, 2001 to June 2002) are selected primarily on data based information from State, Regional, and local levels. Regional IPPE programs and activities will include the following:

- DUI Traffic Safety related injury prevention projects. On-going support for Trauma Nurses Talk Tough, WTSC Zero Tolerance Campaign, Drinking Drivers are Out There signage project (including the development of slide for theatres region-wide), SWAY.

- Continued coalition support and/or development of DUI, Falls, and Suicide, prevention programs for the underserved counties of the Southwest Region: *Cowlitz, Klickitat, S. Pacific, Skamania, and Wahkiakum.*

- Safety Lids Save Kids Bicycle Helmet program to include helmet distribution and fittings in the context of coordination with law enforcement agencies, established coalitions, EMS and trauma care providers, health fairs, and bicycle safety rodeos.

- Promoting and providing ready to go injury prevention programs and educational materials and resources through marketing efforts and communication via IPPE stakeholders. For example, Sober Roadways, Tread to Safety, Bicycle & Scooter Safety, and drowning prevention guides.

The primary strategies for addressing these issues will be through continued coalition support, education, community relations, marketing efforts and outside mini-grant funding.

GOAL: To reduce alcohol related fatalities within the Region by targeting the most vulnerable population of licensed drivers (16-25) for motor vehicle crashes.

OBJECTIVE ONE: Sponsor at least two educational events on DUI prevention that will reach at least 1,000 licensed driver aged (16-25) during FY 02-03.

Strategies for education:

1. Make traffic safety programs available to S. Pacific, Wahkiakum, Klickitat, and Skamania counties. Present Trauma Nurses Talk Tough presentations to the Junior and Senior High Schools. One (TNTT) presentation in each county during FY 02. Distribute Zero Tolerance videos and materials to teachers and students.

2. Injury Prevention will coordinate efforts with local injury prevention coalitions, local EMS councils and EMS providers to present at least one moc driving under the influence crash at local schools where the (TNTT) presentation will be delivered (S. Pacific, Wahkiakum, Klickitat, and/or Skamania) counties in FY 02.

Rationale for education**:**

Injury prevention programs are limited in certain areas of the Southwest Region because of lack of funding or resources. For instance, in Clark County, Southwest Washington Medical Center which is a designated level two facility are required to have hospital based injury prevention programs; however, in S. Pacific, Wahkiakum, Klickitat, and Skamania there are no level "2" facilities outside the urban area. In Cowlitz county, St. John Medical Center is a level three facility and has an active Lower Columbia Safe Kids Coalition participating in various IPPE programs such as, TNTT, Crib, Bicycle, and smoke alarm safety.

GOAL: To empower local coalitions to identify and successfully address their injury prevention problems.

OBJECTIVE TWO: Continue the support of coalition development and or/growth of the five coalitions established in each county of the Southwest Region by providing at least one mini grant of $1,000 dollars to support county based injury prevention efforts.

1. Complete and on-site needs assessment survey for the five local injury prevention coalitions to help update and identify current injury prevention problems and/or programs. Quantify the level of interest for the continuation of DUI traffic safety related projects in each county of the Region and share the top four fatal and non fatal causes of injury in each county to interested IPPE stakeholders.

- Wahkiakum County Injury Prevention Coalition
- Stevenson Injury Prevention Coalition (SIPC-Skamania County)
- S. Pacific County Injury Prevention and Public Education Coalition
- Coalition Against Youth Trauma (CAYT-Klickitat County)
- Lower Columbia Safe Kids Coalition (Cowlitz County)

Clark County has an active Safe Kids Coalition. Also, at the county level is the Public Safety Educator's group (PSEC) representing various agencies that meet on a monthly basis to discuss current injury prevention programs and topics.

Rationale for continued support of county-based prevention coalitions:
Local coalitions can promote community pride, ownership and initiative. Injury prevention and public education activities are more likely to be accepted with local participation backed up by professional information, statistical data, and proven programs modified to fit local needs.

The successful expansion of coalitions in the Southwest Region include rural or under-served counties as identified by the Southwest Region EMS Injury Prevention Subcommittee. These local coalitions have demonstrated program and

project planning, successful injury problems identification, implementation, and evaluation. Region-wide IPPE based programs include;
Bicycle Safety Program, Trauma Nurse Talk Tough, WTSC Zero Tolerance DUI program, Tread to Safety (falls prevention) which is currently a hospital-based program at Southwest Washington Medical Center. There are two National Safe Kids Coalitions in the Southwest Region: Clark and Cowlitz counties.

To help measure the effectiveness of the county-based injury prevention coalitions the following information will be incorporated into the Injury Prevention Public Education monthly reports to the Department of Health:

- Each coalition will submit by-laws, meeting minutes and work plans
- List of on-going or new IP programs being implemented in their local community
- Track the number of program presentations, materials distributed, and the number of people reached
- Track the number of helmets fitted and distributed
- Record outside mini-grants received or in-kind donations

GOAL: To reduce the number of bicycle related head injuries suffered by children and adults in the Region.

OBJECTIVE THREE: Through local IP Coalitions, at least 600 helmets will be distributed and fitted to children aged five to seventeen.

Strategies for helmet distribution and education:

1) Continue to distribute 600 helmets to programs and/or coalitions that provide proper helmet fitting and education.

2) Track and record the number of presentations/meetings/coalition meetings attended.

3) Track and record the number of brochures, helmets and materials distributed through out the Region.

4) Continue to work with coalitions to help support their efforts in IPPE activities.

GOAL: Continue to be a regional information resource center that markets and provides injury prevention and public education resources to organizations and individuals.

OBJECTIVE FOUR: Market the IPPE programs and expertise available from the Regional Council.

Strategies for marketing and communications:

1) Participate in ten health fairs in the Region (two in Clark County, one in each of the other counties requesting attendance).

2) Display the IPPE mobile booth at health fairs, colleges, schools, hospitals, EMS agencies, public health departments, and other organizations. Track the number of public contacts and materials distributed.

3) Continue to develop relationships with outside grant sources for additional injury prevention monies.

4) Provide media with information regarding Regional Council functions and/or local IPPE activities are occurring in a respective county.

5) Provide injury prevention programs and train the trainer workshops as needed to Continue the support of injury prevention coalitions and partners region-wide.

D. Results and Accomplishments: Identify and describe significant results and accomplishments achieved to date within the region:

- The IPPE Coordinator since 1992 functioned at a 0.5 FTE level. However, in September 2001 the injury prevention coordinator was promoted to a 1.0 FTE position.

- The mobile IP booth continues to be used almost monthly in the Region. In the summer, and during the months of March, April, May, and June, the booth is used almost every weekend.

- New materials have been added to the IP library and copies of Think First! and Trauma Nurses Talk Tough slides have been purchased for loan to agencies and health facilities in the Region.

- In FY 00-01 two grants were received $3,575.00 from the Southwest Washington Community Foundation and $3,500.00 from Southwest Washington Independent Forward Thrust (SWIFT) to help support the bicycle helmet program - Safety Lids Save Kids and an additional $500.00 mini-grant from the Washington Traffic Safety Commission was awarded as well.

- In FY 01-02 the region received $5,750.00 for multi-purpose and bicycle safety helmets from the Southwest Washington Community Foundation. $1,000 each from Hidden Charitable Trust and Walmart. Also, $2,500 from the Public Safety Educator's Group (PSEC).

- The region was awarded the STAR award for Excellence in Traffic Safety Community/Government Partnership in 1994 from the Washington Traffic Safety Commission for the Region's Bicycle Helmet Safety Campaign; and in 1995 the Injury Prevention Program won the People Who Shine award from the Washington Traffic Safety Commission.

- In April of 1998 Klickitat County passed a bicycle helmet ordinance that required children under the age of 14 to wear a helmet when riding a bicycle.

- Local Injury Prevention Coalitions are formed in all six counties of the Region.

- A web-site for the Southwest Region has been established www.swems.org. and an injury prevention web page is currently under-construction.

IV. PRE-HOSPITAL

A. Communication:

1. Current Status: Describe the current regional communications system, including :

a. Public Access (e.g., E911, etc.)
In all counties in the Region, the public has access to an enhanced 9-1-1 system. In Klickitat County the two hospital ambulance services can (and rarely do) receive EMS calls and dispatch their EMS units independently of the 9-1-1center.

b. Dispatch:

1) Training for dispatch personnel
Existing county communication facilities, usually supervised by the Sheriff's Office (Clark County has a true consolidated center for all emergency dispatching), operate most 9-1-1 centers in the Region. All counties except Klickitat train dispatchers in a formally recognized EMD program based upon the Medical Priority Dispatch System (MPDS®) program. The Klickitat County 9-1-1 center dispatchers are trained in and use PowerPhone®. The standard adopted by the Regional Council in 1991 provides that all emergency medical dispatchers be trained in a Regionally approved 16-24 hour emergency medical dispatch (EMD) course. Each 9-1-1 center should provide on-going training and Quality Assurance and Improvement. The Regional Council will provide MPDS® protocol card sets, initial training and on-going system support to MPDs and 9-1-1 centers within the Region.

Since EMS dispatch is not the primary function of many of the Region's 9-1-1 centers and because of costs and time associated with training, some 9-1-1center supervisors have been reluctant to adopt the Region's standard. Working with its 9-1-1 centers, the Region is committed to eliminating practical barriers to improvements in EMD.

2) Dispatch prioritizing
Two factors produce the need for assigning priorities to EMS calls–the need of providers to have accurate information about the nature of the call (as well as providing emergency first aid instruction to callers) and the need to match the proper resource with the call. The first factor is always present; the second becomes more important as call volume increases. In more rural areas, part of the resistance to priority dispatch systems results from the perceived absence of the second factor in low volume systems.

Practice in priority dispatch will enable low volume systems to respond effectively in disaster and infrequent MCI situations. The Region's rationale for standardizing EMD rests on the awareness that strategy consists of practicing now what will be necessary eventually.

3) Provisions for bystander care with dispatcher assistance
All centers provide first aid instruction to bystanders. A priority dispatch system allows extension of system first response to the advice provided to callers by dispatchers. Independent dispatch advice creates unnecessary liability for the EMS system. In the absence of professionally trained and immediately available initial responders, the only first aid available to patients may be based on advice to callers by dispatchers. This advice can influence the condition in which first arriving responders find the patient and the patient's ability to respond to therapy.

The Region views priority dispatch systems as integral to good system medical control and appropriate care for patients.

4) Any Patient Care Procedures (PCPs) or County Operating Procedures (COPs) developed to improve communications
In the *Dispatch and Response Times* section, the Region's PCPs establish guidelines for training standards and levels of service to be dispatched for trauma calls.

c. Primary and alternative communications systems.

Primary—The Clark County system uses an 800 mHz system. Cowlitz County agencies use UHF or VHF high-band depending on terrain. Klickitat and Pacific agencies use VHF High-band. Skamania County agencies use UHF and VHF High-band. Wahkiakum County agencies use VFH High-Band.

Secondary—All agencies have the common State Fire frequency available. In urban areas, cellular phones are available. Clark County's 800 mHz system is backed up by UHF and VHF systems.

d. A discussion of system operation during single patient, multiple-patient, mass casualty and disaster incidents, identifying ambulance to ambulance, ambulance to dispatch, and ambulance to hospital communications systems

Hospital to Ambulance Communications: HEAR

During the 1970s, DOH personnel established a VHF radio system in the state to allow EMS personnel to communicate with the Region's hospitals and health facilities. This system, called HEAR, was developed as an integral part of the state-wide EMS system. The HEAR system is used by all agencies within the Region to communicate with their respective hospitals. Although transport ambulances in the Region are equipped with the HEAR system, not all first response vehicles are. Additionally, all hospital emergency departments in the Region have access to HEAR for communications between facilities.

Ambulance to Ambulance Communications

This issue is addressed under item e, below.

Personnel Recall

All trauma-verified agencies in the Region use pagers in the recall of their personnel. The percentage of personnel with pagers varies, however, from agency to agency.

e. Roles of other public and private agencies, e.g., police to fire to ambulance.

The geography of the Region makes maintaining constant communication with the dispatch center and communication with medical control difficult or impossible. The establishment of trunked systems or repeater sites in mountainous terrain is expensive, as are alternatives like satellite communications.

The limitation of frequencies available to private, non-fire department ambulances is a problem that has been identified in the Region. Since these agencies are limited to their dispatch frequencies and to the HEAR system by their FCC licenses, they sometimes cannot communicate with first response ambulances, police and sheriff's departments, air-ambulances, and other agencies at the scene of a trauma incident. An additional problem is that agencies in adjacent jurisdictions may lack the ability to communicate with each other for mutual aid or multiple jurisdiction incidents. These communications problems require further study to determine their Region-wide impact; however, it appears that without a statewide or region-wide coordinated communications system, communications at multiple jurisdiction incidents will remain a problem, particularly within the rural areas. Establishing such a Regional system is expensive and requires many agencies to change communication equipment.

f. Evaluating communication system providers and dispatch activities using the Table A.

See following page.

TABLE A

Communications Centers Survey

List by County

	1. Citizen Access	2. Consolidated	3. No. Employed*	4. No. Not Trained	5. Kinds of Training & How Often	6. On-going Training & Certification	7. Kinds of Protocols	8. Med. Director involvement	9. Dispatch Prioritizing	10. Bystander Care	11. Pre-arrival Instructions	12. Quality Assurance
Clark	Y [X] N [ ]	Y [X] N [ ]	14		In house/ 6 mos	Y [X] N [ ]	MPDS	Y [X] N [ ]	Y [X] N [ ]	Y [X] N [ ]	Y [X] N [ ]	Y [X] N [ ]
Cowlitz	Y [X] N [ ]	Y [X] N [ ]	6		Outside/ annual	Y [ ] N [X]	MPDS	Y [X] N [ ]	Y [X] N [ ]	Y [X] N [ ]	Y [X] N [ ]	Y [X] N [ ]
Klickitat	Y [X] N [ ]	Y [X] N [ ]	3		Outside/ annual	Y [ ] N [X]	Power Phone	Y [ ] N [X]	Y [X] N [ ]	Y [X] N [ ]	Y [X] N [ ]	Y [ ] N [X]
Pacific	Y [X] N [ ]	Y [X] N [ ]	3		Outside/ 6 mos	Y [X] N [ ]	MPDS	Y [ ] N [X]	Y [X] N [ ]	Y [X] N [ ]	Y [X] N [ ]	Y [ ] N [X]
Skamania	Y [X] N [ ]	Y [X] N [ ]	3		Outside/ Quarterly	Y [X] N [ ]	MPDS	Y [X] N [ ]	Y [X] N [ ]	Y [X] N [ ]	Y [X] N [ ]	Y [X] N [ ]
Wahkiakum	Y [X] N [ ]	Y [X] N [ ]	2		Outside/ Annual	Y [ ] N [X]	MPDS	Y [X] N [ ]	Y [X] N [ ]	Y [X] N [ ]	Y [X] N [ ]	Y [ ] N [X]

*maximum number of dispatching positions

1. **Strengths and Weaknesses:** Discuss the strengths and weaknesses of the current system to include an assessment of additional needs within the region.

Strengths:

a. All 9-1-1 Centers support the concept of priority dispatching with pre-arrival instructions.

b. A recent Communications Survey indicates a high level of satisfaction with communications services.

Weaknesses:

a. Significant variance in communications capabilities exists between rural and urban areas of the Region. Lower EMS call volume in rural areas gives little incentive for law enforcement 9-1-1 center administrators to emphasize training of cross-trained dispatchers.

b. The geography of the eastern Region makes UHF or higher band communication impossible; VHF communication can also be spotty and is always less clear than UHF or higher band communications.

c. Quality Assurance and Improvement activities are limited in the Region's rural counties. This weakness exists due to the perception that QAI requires large time commitments for personnel and is too technical to be worthwhile. In 1995, the Regional Council completed a manual entitled *Emergency Medical Dispatch Implementation, Quality Improvement, Continuing Dispatch Education Standards and Guidelines*, and adopted it as the standard for EMD in the Region. The manual defines specific responsibilities of the MPD, 9-1-1 centers, and others in a formal method by which to implement quality improvement principles in the priority dispatch programs of each county 9-1-1 center.

3.Demographics:

a. Identify specific demographics of the region that impact communications system development in the region.

Increasing Hispanic and Eastern European minority populations make bilingual call-takers desirable.

b. If appropriate also review and discuss other data elements relating to regional communication issues and systems.

None

2. **Goals:** List the Regional EMS/TC system's goals, objectives, strategies and projected costs to improve the communications system to build on the strengths and mitigate the weaknesses of the current system.

Objective	Strategies	Cost
Provide EMD training and support resources to encourage rural county centers to meet Region standards.	1. Provide training for administrators on how to mount effective QAI programs. 2. Provide financial support for basic and refresher EMD training for personnel	$5000.00 $5000.00

B. Medical Direction of Pre-Hospital Providers: Discuss the system of off-line and on-line medical direction. Discuss the strengths and weaknesses of the current system, and list the Regional EMS/TC system's goals, objectives, strategies and projected costs to improve the medical direction within the system.

"Patient outcome is influenced by early medical intervention, and therefore contemporary prehospital care systems are a well-defined practice of medicine. As such, one of the most important aspects of prehospital medicine is the oversight provided by the medically and legally responsible physician.[1]"

Strengths

The roles and responsibilities of the medical program director in each county are spelled out in Revised Codes of Washington (RCW) and Washington Administrative Code (WAC). In all six counties within the Southwest Region, the MPDs provide medical control (both indirect and direct) by means of voice communications, written standing orders (Protocols), and regularly scheduled run reviews. As well, the MPDs provide legal authority for paramedics, EMTs, and first responders to administer care. MPDs within the Region work with the Regional Council to help develop and approve OTEP, Regional Training Programs, Patient Care Procedures, and guidelines for the transport of the sick and injured, and emergency medical dispatch.

In most counties, the MPD provides examinations for paramedics and ILS providers practicing within the county. They also recommend certification, recertification, and decertification of EMS personnel, where appropriate. The MPDs from each county are also part of the Quality Assessment and Improvement program within the Region.

Direct (on-line) medical control is available by physicians at both Southwest Washington Medical Center in Vancouver, and St. John Medical Center in Longview. EMS providers in the more rural areas often do not have constantly available on-line medical control and must rely on medical control by written protocols.

MPDs provide prospective, immediate, and retrospective indirect medical. Each county uses the same set of MPD protocols with minor variation. These basic protocols are based upon the indirect control model first developed in Clark County. Some variation exists among the counties and sometimes within each county, depending on the transport time involved.

Recent changes to the Washington Administrative Code (WAC) have clarified the structure of MPD protocols as they relate to the Region's Patient Care Procedures (PCPs). These changes have resulted in clearer guidance for MPDs in preventing conflicts between their protocols and the PCPs.

Weaknesses

1. Current statutory criteria for MPD selection do not address formal preparation in EMS medical direction or administration. National standards for MPDs have emerged from the work of the National Association of EMS Physicians (NAEMSP) and other organizations. NAEMSP offers a formal training program for medical directors.

2. Excellent medical direction requires great expenditures of time. Current funding permits only modest support for MPDs. MPDs in urban areas with tax-supported services find more adequate compensation for their time than do their rural colleagues. Until compensation for medical directors, particularly in rural areas, offsets the loss of compensation from regular practice, appropriate medical direction of the trauma system will not be institutionalized.

3. Formal Quality Assurance and Improvement (QAI) activities are difficult for MPDs in rural counties. QAI should be more than complaint resolution and medical record review. The Council believes that medical direction of the system should include regular review of system performance by data analysis coupled with establishing targets for system performance and sharing of QAI results with all providers in the system. The Council recommends that the Department offer additional support to MPDs in QAI design and execution.

[1] Racht, E. M., & Reines, H. D. Medical Oversight. In Keuhl, A. E. (ed.), *Prehospital Systems and Medical Oversight* (2nd ed., p. 181). St. Louis: Mosby Lifeline.

Goals and Objectives, including projected costs, for improving medical program direction.

1. The Council recommends that the Department improve criteria for selecting MPDs, specifically to define WAC 246-976-920(1)(a) "knowledgeable in the administration and management of prehospital emergency medical care and services . . ." The cost of this objective is the cost of the revision process.

2. Improving the MPD selection criteria could make certification of MPDs in rural counties more difficult unless accompanied by increased support for MPDs in meeting the new criteria. The Department should seek funds to reimburse the cost of attendance for MPDs at a formal NAEMSP Medical Director Course or hold a standard training program in conjunction with one of the State MPD Workshops. The cost for each MPD would be the cost of the three-day course plus compensation for practitioners who must leave their practices to attend. For our region, this cost could approach $30,000.00. The Council recommends that the State either improve compensation for MPDs in counties where the State stipend is the MPD's only compensation or actively pursue a regional approach to medical direction that could achieve economies of scale.

   Since law and administrative code requires the State to certify MPDs for each county, the State has a responsibility to assure that MPDs have the tools necessary for excellent medical direction. An alternative model, not envisioned by the State, is to require each service to employ a medical director and allow the market to operate.

3. The National Association of EMS Physicians publishes a text on QAI for EMS. If funds are available, the Region will purchase a copy of the text for each MPD. The cost is $250.00.

C. Pre-Hospital EMS and Trauma Services:

a. **Current Status:** Describe available resources, configuration, staffing and service levels of current prehospital services.

a. Current EMS/TC Personnel Resources: Identify the EMS and trauma care workforce resources available within the region, by county, to include all levels of prehospital personnel.

County	FR	EMT	IV	AW	IV/AW	ILS	ILS/AW	PM	Total
Clark	139	318	47	0	18	0	0	159	681
Cowlitz	76	150	41	0	2	0	0	30	299
Klickitat	59	51	1	0	2	0	1	14	128
Pacific	35	59	15	0	5	0	0	18	132
Skamania	13	23	3	0	1	0	1	7	48
Wahkiakum	3	35	5	0	0	0	0	3	46
Oregon	0	5	0	0	0	0	0	0	5
Total	325	641	112	0	28	0	2	231	1339

b. Prehospital Training Resources: Identify available training resources for all levels of prehospital EMS/TC personnel.

The Region has an effective and comprehensive prehospital and hospital education and training program. Some training limitations can be found in the Region, particularly with initial paramedic training. At present, no college based paramedic program exists anywhere in the Region, while three programs exist in Portland, Oregon. Clark County Fire District 5 is supporting the Northwest Region Training Center (NRTC), which is offering initial paramedic training. NRTC is forming a consortium with the Region and Clark College to sponsor accreditation of a paramedic degree program.

At present each EMS agency or department in the Region provides prehospital basic and/or advanced continuing medical education (CME). Most agencies have adopted the Ongoing Training and Evaluation Program (OTEP) with the help of the Regional Council. Health care facilities report little or no problem accessing advanced levels of continuing education training, with Oregon and Seattle Hospitals providing Advanced Trauma Life Support (ATLS) courses for physicians, and Vancouver, Washington and several Oregon hospital providing trauma and pediatric courses for nurses and other in-hospital providers.

Generally, each County EMS Council provides first responder and EMT courses in the Region. Clark County has an active education subcommittee that also addresses issues of paramedic refresher training. Clark County also sends individuals to Tualatin Valley Search and Rescue's Regional Training Center in Sherwood, Oregon, for advanced prehospital trauma courses. Cowlitz County EMS Council regularly sponsors specialized training such as defibrillation and MAST pants training. Klickitat and Skamania Counties schedule programs in white water rescue and dive rescue, as well as first responder training.

The Southwest Region is strongly influenced by two Oregon Level I trauma centers (University Hospital and Emanuel Hospital), the Oregon Health Sciences University (OHSU), the Oregon Department of Health (DOH), and the community college districts in Portland, Astoria, and north central Oregon, all of whom provide initial and on-going EMT courses. As well, two private Oregon training institutions provide EMT-Basic through EMT-Paramedic courses, and Portland Community College, Portland, Oregon, began offering an Associate Degree in Emergency Medical Technology in September of 1994. This "Oregon-influence" has helped shape the character of EMS training and education in the Southwest Region.

College Based Programs

Clark College in Vancouver, offers basic EMT courses.

The Region will participate in a consortium to establish a degree program at Clark College in Vancouver. Portland Community College, Portland, and Clatsop Community College, Astoria, both provide EMT certification courses at the (Oregon) EMT Basic) and EMT I Intermediate level. The College of Emergency Services, Oregon provides training to the paramedic level. Additionally, Oregon Health Sciences University (OHSU), Portland, provides a one-year certificate program in advanced paramedic training and began offering a four-year Bachelor's degree in paramedical sciences in 1996.

Linfield College, Portland Campus, introduced a Bachelor of Science degree in Health Sciences in September 1992. Oregon Health Sciences, University of Portland, Washington State University, and Linfield College all offer Bachelor of Science in Nursing degrees. OHSU offers a doctorate in medicine (M.D.) and began a bachelor's degree in physician assistant studies in 1997. Pacific University, Forest Grove Oregon (about one hour from Vancouver), began offering a Master of Health Sciences degree for physician assistants in June 1997. The Region, while strongly relying on Oregon educational institutions, has strong educational support for all allied health care professionals within the Region. The greatest problem, however, is access to those programs by rural EMS providers.

Training Contracts with Local Councils

The Southwest Region EMS & Trauma Care Council provides initial and refresher prehospital trauma (PhTLS, BTLS) courses, and other specialized training programs in pediatric emergencies and trauma, vehicle operation, OTEP skills evaluation. These courses are delivered to regional providers directly and under contracts with Local EMS/TCCs. The Regional Council also coordinates hospital ED/CCU/OR rotations at Southwest Washington Medical Center Hospital for certified personnel of the Region who need skills training.

AMR Northwest coordinates and provides advanced prehospital Trauma Life Support (PhTLS) courses for its personnel in both Oregon and Washington. The Regional Council began a Basic Prehospital Trauma Care Course (B-PTC) in 1992, aimed specifically at bringing rural agency personnel (mostly volunteers) comprehensive trauma training. In the preceding biennium, the Council has sponsored both BTLS and PhTLS courses for all areas of the Region.

c. **Prioritizing and Conducting Prehospital Training:** Discuss the need for training to maintain existing level of personnel and to add needed personnel to the system, including a discussion of strategies for prioritizing and securing needed prehospital personnel training.

The last comprehensive needs survey yielded the following projected training needs through 2001:

Type of training	Projected number of students
Basic prehospital trauma training	88
Advanced prehospital trauma training	25
Basic EMS-C (PEPP or equivalent)	27
PALS	46
Initial First Responder	2
First Responder Update	6
Initial EMT-B	10
EVDT	10
Initial SEI	8
SEI Update	8
First Responder Instructor Update	6
BLS (OTEP) Evaluator	36

The Region's objectives and strategies for meeting these needs follows.

Objective	Strategies
Maintain and improve the quality of prehospital in the Southwest Region, with an emphasis on the needs of the rural provider.	1. Support prehospital trauma life support courses through contracts with Local Councils. 2. Support prehospital pediatric trauma courses through contracts with Local Councils 3. Develop a resource library of video tapes, slides, books, and other materials to loan to local EMS agencies for CME courses 4. Develop specialized seminars to improve EMS and trauma care in the region. 5. Make funds available to support on-going trauma training in hospitals, with emphasis on rural trauma center needs.
Train or retrain active EMS providers in the Region in prehospital trauma (basic prehospital or advanced, where appropriate.	1. Provide prehospital trauma life support courses through contracts with the Region's trainers
Provide prehospital pediatrics trauma courses.	1. Provide PEPP courses through contracts with Local Councils
Whenever possible, include an injury prevention component in OTEP.	a. IP Coordinator to consult with OTEP providers

d. Additional Public Safety Personnel Role and Availability: Discuss the roles and availability of other public safety personnel within the region (law enforcement, SAR, military, etc.).

Weyerhauser Corporation, as an affiliated provider, is available for assistance in MCI or disaster. National Park Service personnel and Search and Rescue personnel in the Mt. St. Helens National Volcanic Monument provide special capabilities for mountain rescue.

In addition to the Oregon resources noted in the Plan, other Oregon EMS resources are available to help manage MCI or disaster. In the eastern part of the Region, ambulance and fire-rescue services are available from the Dalles. Both ALS providers in Klickitat County are able to summon these resources through the County's communication center. A similar situation exists in Pacific County with regard to resources in Astoria.

2. **Strengths and Weaknesses:** Discuss the strengths and weaknesses of these programs including an assessment of additional personnel and training needs within the region.

Strengths:

a. The Region has helped make available prehospital trauma training for all or its providers.
b. Clark County's MPD has developed model OTEP for BLS and ALS providers
c. The number of providers has increased modestly, maintaining a stable workforce.

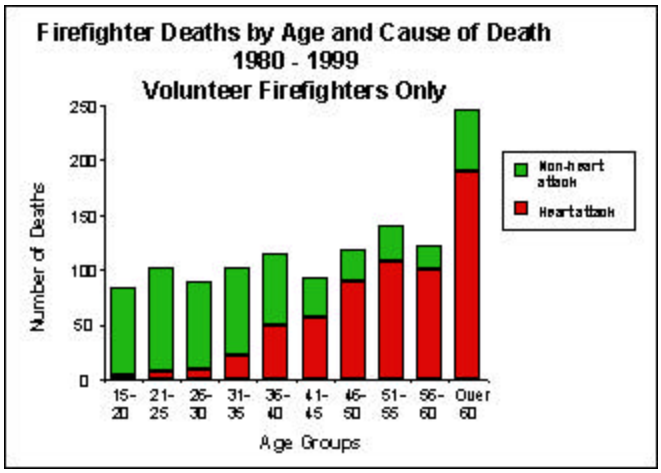
Weaknesses:

In a recent survey, many of the Region's providers report difficulty in maintaining their volunteer forces. Although only five agencies report a net loss of volunteers, 17.24% (n=105) of the volunteers from agencies responding to the survey have left service in the past two years. These lost volunteers have been replaced by 148 new volunteers. Agencies in the Region's more rural counties report the greatest difficulty in recruiting and retaining volunteers.

3. Demographics: Identify specific demographics of the region that may drive the expansion of the existing prehospital personnel and training, such as population by age and gender:

- The problems faced by urban and rural agencies differ. Urban agencies find served populations and labor costs of maintaining a professional workforce rising sharply. Since these agencies are tax-supported, their dilemma is maintaining adequate staffing and placing new units in service in the face of revenues growing more slowly than costs. In Clark County, the increase in Russian, Hispanic, and Vietnamese residents creates a need for language training.

- Much of volunteer rural EMS service is provided through combined fire and EMS departments. The graph below (from the *Report on the 2000 National Volunteer Fire Summit*, USFA, 2000) demonstrates the national death rates for volunteer firefighters by age. Factors discussed above have led to an older volunteer population. As the volunteer force ages, the risk of death from degenerative disease increases sharply. Data of deaths of EMS providers not members of fire departments are difficult to find.



The national trend of volunteers suffering cardiac events requires measures to reduce the strain on rural providers, including education on fitness and health risks. The most recent survey (2001) of the Region's volunteer agencies indicates that the second most common age range of volunteers is 36-45, the range in which deaths from cardiac events begins to increase dramatically.

4. Goals: Identify the Regional EMS/TC system's long term and short-term goals, objectives, strategies and projected costs to improve the overall Pre-Hospital EMS and Trauma Services in the region.

Objective	Strategies	Costs
Provide support to agencies seeking to pass or increase EMS levies	Local workshops on marketing EMS services and building coalitions that influence public response to requests for levies.	$6,000.00
Provide education on health risk reduction for providers	Provide printed and multimedia materials on risk reduction techniques	$6,000.00
Provide support in volunteer recruitment and retention strategies for rural providers	1. Give each rural agency a copy of *Recruiting, Training, and Maintaining Volunteer Firefighters* by Snook, Johnson, and Olson. 2. Sponsor a presentation and workshop at the Region's conference in the Spring of 2002	$800.00 $3,000.00

D. Verified Aid and Ambulance Services:

1. **Current Status:**

a. Identify the current Prehospital Response Areas (urban, suburban, rural, and wilderness) in each county.

Clark County	
Urban	City of Vancouver City of Camas
Suburban	Battle Ground Washougal
Rural	Ridgefield Yacolt Woodland (part) Remainder of unincorporated area of the county
Wilderness	None

Cowlitz County	
Urban	City of Longview
Suburban	Kelso
Rural	Woodland (part) Kalama Remainder of unincorporated area of County
Wilderness	None

Klickitat County	
Urban	None
Suburban	None
Rural	Goldendale White Salmon Bingen Bickleton/Cleveland Unincorporated areas of the County other than Wilderness described below
Wilderness	Area east and north of Alder Creek Areas north of SR 142, east of SR 141, and west of US 97

(South) Pacific County	
Urban	None
Suburban	None
Rural	Long Beach Illwaco Remainder of unincorporated area of the county
Wilderness	None

Skamania County	
Urban	None
Suburban	None
Rural	Stevenson North Bonneville Remainder of unincorporated area of the county other than National Forest

Wilderness	Gifford Pinchot National Forest

Wahkiakum County	
Urban	None
Suburban	None
Rural	Cathlamet Remainder of unincorporated area of the county
Wilderness	None

Forty-three licensed ambulance services and EMS agencies, one search and rescue service, and one air ambulance service from Portland, Oregon provide prehospital care in the Southwest Region. One of these agencies is private; the others are public or not-for-profit agencies.

Clark County is fully covered both by contracted private (franchise) and public ALS transport agencies, public ALS and BLS first response services, and an active search and rescue organization. As well, Oregon based Life-Flight provides air ambulance services to the entire county (and Region). Clark County's population is primarily urban, however parts of the northern area are rural and or/suburban. Mount St. Helens, an active volcano and a national monument, is the primary geographic area that provides the longest response times for citizens ill or injured.

A majority of Cowlitz County's population is considered urban; however, large areas are considered rural. Both the Columbia and Cowlitz Rivers flow through or by the county. In Cowlitz County, ALS transport as well as BLS first response, serve the entire county. Castle Rock Ambulance, Kalama Ambulance, AMR/Medix Northwest, and most recently (1994) Cowlitz 2 Fire and Rescue all provide ALS transport services within the general response area. First Response for all calls occurs on a closest unit response basis, as does transport by Castle Rock and Kalama Ambulance. AMR and Cowlitz 2 provide transport service on a rotation basis, not on closest unit response basis. The Council will examine data for patients served by these agencies to determine whether this response arrangement affects patient outcomes. The Council will then provide a forum for AMR and Cowlitz 2 to discuss the data and the wisdom of moving to closest unit transport response.

Klickitat County, a large primarily rural county, is served in the west and middle by ALS hospital based transport services, and in the east by a BLS transport service. Glenwood Fire has recently entered into BLS transport service, with ALS transport via Skyline or Klickitat Valley Hospitals. Several BLS first response units, located within fire departments and/or fire protection districts, are disbursed throughout the county. All Klickitat County is served by either BLS or ALS transport. However, the cities of White Salmon and Goldendale do not provide first response.

Skamania County, mostly rural, is served by a hospital-district funded ALS first response and transport service. The Skamania Ambulance operates full-time with paramedic services. Sheriff's Department officers with first aid or first responder training also provide first response as an ad-hoc basis.

Southern Pacific County, both rural and bordered on the west by the Pacific Ocean, is provided with paramedic ALS service by a fire department based transport service. As well, two fire department based first response units provide first aid to the residents of this county. No area of south Pacific County is without either BLS and/or ALS service.

Wahkiakum County operates with ILS transport services through much of its county. A Cathlamet based ILS transport ambulance provides transport care to the residents of this county, and has ALS service on an ad-hoc basis. Two other BLS first response units provide care in the northern area and the west area of the County. Again, ALS, ILS, or BLS services serve the entire County.

Other EMS agencies that are not included in this section provide care in the Southwest Region. These include The Dalles Fire Department, American Ambulance, and Community Ambulance, all located in Oregon. Additionally, the entire Portland, Oregon EMS system represents a tremendous resource for backup in the event of a large-scale trauma incident.

b. Provide an assessment of the need for and distribution of services within the region as defined in RCW 70.168.100(1)(h). Discuss the current Regional process for determining need and distribution within each county in the region.

The Region has long struggled with the mandate to determine the number and distribution of services for its citizens. Previous editions of the plan detail the arbitrary method eventually used. Briefly, while good tools exist with which to determine the number and distribution of units required for a given level of service, no good tool exists to determine the number of agencies necessary to do the same.

The Council has adopted a program to determine areas not currently served at Region standards. This process begins with a careful mapping of current response areas to detect any gaps in coverage or areas of overlapping coverage. The second stage examines any gaps in coverage and determines whether population densities warrant establishing another service to cover the gap. This process will be included in subsequent contracts between the Region and the State.

NOTE: Include, as Appendices to this plan, maps of response areas within the region.

2. **Strengths and Weaknesses:** Discuss the strengths and weaknesses of the existing regional prehospital service delivery system.

Strengths:

a. All areas of the Region have adequate distribution of aid and transport services at ALS and BLS levels.

b. Rural providers cooperate to be sure that requests for service in adjoining areas receive appropriate response when resources are limited. BLS rendezvous with ALS services is the norm.

c. Although the volunteer force in the Region is aging, their commitment to helping their neighbors remains strong.

Weaknesses:

a. No good method is in use for determining what level of services is adequate for sparsely populated areas.

b. In rural areas the conflict between patient transfers and availability for emergency response is unresolved. Physicians in these areas believe that units from low response agencies should be available for routine transport of patients to more urban facilities. Since these agencies have a small number of available units and personnel, interfacility transports can diminish emergency response capability.

3. **Demographics:** Identify specific demographics of the region that may drive the expansion of the existing prehospital service delivery system. Using the State of Washington 1999 Data Book, identify the following for each Prehospital Response Area when possible or at minimum for each county. NA=not available in State of Washington 1999 Data Book.

a. land area (Sq. Mi.)

Clark	Cowlitz	Klickitat	Pacific	Skamania	Wahkiakum
627.9	1137.8	1872.5	974.6	1656.5	264.3

b. land area in incorporated areas

Clark	Cowlitz	Klickitat	Pacific	Skamania	Wahkiakum
60.64	28.6	4.28	2.87	1.13	2.00

c. land area in unincorporated areas

Clark	Cowlitz	Klickitat	Pacific	Skamania	Wahkiakum
567.26	1109.2	1868.22	971.73	1655.37	262.3

d. total population

Clark	Cowlitz	Klickitat	Pacific	Skamania	Wahkiakum
337,000	94,100	19,300	21,500	9,900	3,900

e. population density (/Sq. Mi.)

Clark	Cowlitz	Klickitat	Pacific	Skamania	Wahkiakum
536.7	82.7	10.3	22.1	6.0	14.8

f. proportion of population in incorporated areas (percent)

Clark	Cowlitz	Klickitat	Pacific	Skamania	Wahkiakum
48.8	56.9	32.7	32.1	18.9	14

g. proportion of population in unincorporated areas (percent)

Clark	Cowlitz	Klickitat	Pacific	Skamania	Wahkiakum
50.2	43.1	67.3	67.9	81.1	86

h. If appropriate also review and discuss other data elements such as total numbers of licensed drivers/licensed vehicles in the region and miles of roads in the region

Clark	Cowlitz	Klickitat	Pacific	Skamania	Wahkiakum
242,303/305,128	68,434/102,456	14,761/21,498	16,356/21,594	6,226/8,551	2,613/3,956

4. **Goals**: Identify the Regional EMS/TC system's long term and short term goals, objectives, strategies and projected costs to improve the overall verified Pre-Hospital EMS and Trauma Service response in the region.

Objective	Strategies	Cost
Support rural volunteer retention and recruitment efforts	1. Provide resources for retention and recruitment 2. Provide training support for new and existing personnel	$5,000.00 $90,000.00
Refine the Region's methods for determining need and distribution of services	1.Develop GIS mapping of current service areas 2. Identify underserved areas 3. Modify Regional min/max numbers	$2500.00 $1,000.00 $500.00
Educate staff at rural facilities with hospital-based ambulance services about necessity of keeping units available for emergency response.	1. Meet with DONs and Chiefs of Staff with county MPD to discuss the issue	Staff time only

5. **Using Table B**., For each county, specify in the appropriate columns

   a. If "no changes" have been made

   b. Current number of DoH-approved verified prehospital services, by county

   c. Current DOH approved minimum number and any recommended changes .

   d. Current DOH approved maximum number and any recommended changes .

See following pages.

Table B.
VERIFICATION

Southwest REGION _____Clark_____ County

____6/30/01____ DATE

Min/Max Numbers for trauma-verified prehospital services

Instructions.

a. List the current DOH-approved number of prehospital verified services within the region by county.
b. Using the information identified in the narrative above regarding the need and distribution process for each county, specify the regionally- recommended minimum/maximum number of prehospital verified services within the region, by county.
c. List the current number of services verified at each level, as identified in the need and distribution section.
d. Submit a completed Table B for each county

Note: Only a number or a zero may be entered as a recommendation in each of the blanks below, and each blank must contain either a number or a zero.)

SERVICES	Check if No Change	CURRENT Number Verified	MINIMUM NUMBER		MAXIMUM NUMBER	
			Approved	Recommended	Approved	Recommended
Aid -BLS	X	5	1	1	12	12
Aid - ILS	X	0	0	0	0	0
Aid - ALS	X	2	1	1	12	12
Amb - BLS	X	1	1	1	4	4
Amb - ILS	X	0	0	0	0	0
Amb - ALS	X	3	1	1	4	4

NOTE: Include a narrative discussion explaining the region's rationale or justification for recommended changes in the current DoH-approved minimum and maximum numbers.

____Southwest____ REGION ____Cowlitz_____ County

____6/30/01_____ DATE

Min/Max Numbers for trauma-verified prehospital services

Instructions.

a. List the current DOH-approved number of prehospital verified services within the region by county.
b. Using the information identified in the narrative above regarding the need and distribution process for each county, specify the regionally- recommended minimum/maximum number of prehospital verified services within the region, by county.
c. List the current number of services verified at each level, as identified in the need and distribution section.
d. Submit a completed Table B for each county

Note: Only a number or a zero may be entered as a recommendation in each of the blanks below, and each blank must contain either a number or a zero.)

SERVICES	Check if No Change	CURRENT Number Verified	MINIMUM NUMBER		MAXIMUM NUMBER	
			Approved	Recommended	Approved	Recommended
Aid -BLS	X	4	1	1	5	5
Aid - ILS	X	0	0	0	0	0
Aid - ALS	X	0	1	1	5	5
Amb - BLS	X	1	1	1	5	5
Amb - ILS	X	0	0	0	0	0
Amb - ALS	X	4	1	1	5	5

NOTE: Include a narrative discussion explaining the region's rationale or justification for recommended changes in the current DoH-approved minimum and maximum numbers.

____Southwest___ REGION ___Klickitat_____ County

____6/30/01____ DATE

Min/Max Numbers for trauma-verified prehospital services

Instructions.

a. List the current DOH-approved number of prehospital verified services within the region by county.
b. Using the information identified in the narrative above regarding the need and distribution process for each county, specify the regionally- recommended minimum/maximum number of prehospital verified services within the region, by county.
c. List the current number of services verified at each level, as identified in the need and distribution section.
d. Submit a completed Table B for each county

Note: Only a number or a zero may be entered as a recommendation in each of the blanks below, and each blank must contain either a number or a zero.)

SERVICES	Check if No Change	CURRENT Number Verified	MINIMUM NUMBER		MAXIMUM NUMBER	
			Approved	Recommended	Approved	Recommended
Aid -BLS	X	8	1	1	8	8
Aid - ILS	X	0	0	0	0	0
Aid - ALS	X	0	1	1	7	7
Amb - BLS	X	2	1	1	4	4
Amb - ILS	X	0	0	0	0	0
Amb - ALS	X	2	1	1	2	2

NOTE: Include a narrative discussion explaining the region's rationale or justification for recommended changes in the current DoH-approved minimum and maximum numbers.

___Southwest____ REGION _____Skamania_____ County

____6/30/01____ DATE

Min/Max Numbers for trauma-verified prehospital services

Instructions.

a. List the current DOH-approved number of prehospital verified services within the region by county.
b. Using the information identified in the narrative above regarding the need and distribution process for each county, specify the regionally- recommended minimum/maximum number of prehospital verified services within the region, by county.
c. List the current number of services verified at each level, as identified in the need and distribution section.
d. Submit a completed Table B for each county

Note: Only a number or a zero may be entered as a recommendation in each of the blanks below, and each blank must contain either a number or a zero.)

SERVICES	Check if No Change	CURRENT Number Verified	MINIMUM NUMBER		MAXIMUM NUMBER	
			Approved	Recommended	Approved	Recommended
Aid -BLS	X	2	1	1	6	6
Aid - ILS	X	0	0	0	0	0
Aid - ALS	X	0	1	1	1	1
Amb - BLS	X	0	1	1	1	1
Amb - ILS	X	0	0	0	0	0
Amb - ALS	X	1	1	1	1	1

NOTE: Include a narrative discussion explaining the region's rationale or justification for recommended changes in the current DoH-approved minimum and maximum numbers.

__Southwest____ REGION __ (south) Pacific_____ County

___6/30/01____ DATE

Min/Max Numbers for trauma-verified prehospital services

Instructions.

a. List the current DOH-approved number of prehospital verified services within the region by county.
b. Using the information identified in the narrative above regarding the need and distribution process for each county, specify the regionally- recommended minimum/maximum number of prehospital verified services within the region, by county.
c. List the current number of services verified at each level, as identified in the need and distribution section.
d. Submit a completed Table B for each county

Note: Only a number or a zero may be entered as a recommendation in each of the blanks below, and each blank must contain either a number or a zero.)

SERVICES	Check if No Change	CURRENT Number Verified	MINIMUM NUMBER		MAXIMUM NUMBER	
			Approved	Recommended	Approved	Recommended
Aid -BLS	X	0	1	1	2	2
Aid - ILS	X	0	0	0	0	0
Aid - ALS	X	0	1	1	2	2
Amb - BLS	X	0	1	1	2	2
Amb - ILS	X	0	0	0	0	0
Amb - ALS	X	2	1	1	2	2

NOTE: Include a narrative discussion explaining the region's rationale or justification for recommended changes in the current DoH-approved minimum and maximum numbers.

__Southwest__ REGION ___Wahkiakum___ County

___6/30/01_____ DATE

Min/Max Numbers for trauma-verified prehospital services

Instructions.

a. List the current DOH-approved number of prehospital verified services within the region by county.
b. Using the information identified in the narrative above regarding the need and distribution process for each county, specify the regionally- recommended minimum/maximum number of prehospital verified services within the region, by county.
c. List the current number of services verified at each level, as identified in the need and distribution section.
d. Submit a completed Table B for each county

Note: Only a number or a zero may be entered as a recommendation in each of the blanks below, and each blank must contain either a number or a zero.)

SERVICES	Check if No Change	CURRENT Number Verified	MINIMUM NUMBER		MAXIMUM NUMBER	
			Approved	Recommended	Approved	Recommended
Aid -BLS	X	0	1	1	1	1
Aid - ILS	X	0	0	0	0	0
Aid - ALS	X	0	1	1	1	1
Amb - BLS	X	2	1	1	3	3
Amb - ILS	X	0	0	0	0	0
Amb - ALS	X	1	1	1	2	2

NOTE: Include a narrative discussion explaining the region's rationale or justification for recommended changes in the current DoH-approved minimum and maximum numbers.

E. Patient Care Procedures (PCPs) and County Operating Procedures (COPs):

3. **Current Status**: Describe the current status of regional PCPs and COPs and attach a copy of the current DoH-approved regional PCPs as well as any updated, revised or new PCPs or COPs as Attachment (A) of your submitted FY 02 - 03 regional plan.

Under contract with DoH, the Council has revised its PCPs once in each year of the prior biennium and submitted the revisions to DoH/OEMTP. Due to the lack of a specific request for adoption, no action was taken to approve these revisions. The revision most recently adopted by the Council is appended.

c. **Strengths and Weaknesses:** Discuss the strengths and weaknesses of the current system to include an assessment of additional needs within the region.

Strengths: The annual review process is sound.

Weaknesses: Confusion continues in rural counties about the definition and scope of COPs. Wahkiakum and Klickitat counties are beginning to develop COPs to issues of geography and dispatch peculiar to their Counties.

d. **Demographics:** Identify specific demographics of the region that drive Patient Care Procedure development in the region.
None

e. **Goals:** list the Regional EMS/TC system's goals, objectives, strategies and projected costs to develop and/or improve the regional PCPs or county COPs.

Objective	Strategies	Cost
Provide support to County Councils regarding place and scope of COPs	1. Provide staff assistance to County Councils and MPDs on place, scope, and development of COPs	Staff time only

F. **Multi county or county/inter-regional Pre-Hospital Care:** Discuss multi-county and/or inter-regional prehospital patient care**,** including addressing issues, if any, relating to the provision of patient care across county or regional lines, and the current status of any existing multi-county or inter-regional PCPs currently in effect.

Klickitat County has a formal agreement with the Dalles for service in a small area of the County directly adjacent to the Dalles. In addition, in the eastern most portion of Klickitat County, Bickleton Fire Department works with Hospitals in Yakima County, which are closer than either of the Level IV Hospitals in Klickitat County. There are no formal inter-regional PCPs.

V. DESIGNATED TRAUMA CARE SERVICES

1. **Current Status**:
   a. List the currently designated trauma services (general and pediatric) and trauma rehabilitation services in the region.

   Following is a list of designated and recognized facilities in the Region:

Center	City	Level	Lic. Beds
SW Washington Medical Center	Vancouver	II	350
St. John's Medical Center	Longview	III	346
Skyline Hospital	White Salmon	IV	32
Kilickitat Valley Hospital	Goldendale	IV	31
Ocean Beach Hospital	Ilwaco	IV	25
Washington State designated centers outside the Southwest region			
Providence Hospital	Yakima	IV	
Yakima Memorial	Yakima	III	
Oregon Hospitals (recognized as part of the SW Washington Trauma System)			
Legacy Emanuel Hospital and Health Center	Portland	I	340
Oregon Health Sciences University	Portland	I	341
Columbia Memorial Hospital	Astoria	III	37

Hood River Memorial Hospital	Hood River	III	32
Mid-Columbia Medical Center	The Dalles	III	49

Sources: State of Washington DOH, 1999; American Hospital Association, 1996

b. Describe facility resources in regard to trauma specialty needs such as pediatric trauma, burn care, traumatic brain injury, spinal cord injury, multi-system injuries, surgical, imaging, critical care procedures, and trauma rehabilitation for pediatric, burn, TBI, spinal cord injury, and orthopedic injuries.

The proximity of two Level I facilities in Oregon influences the availability of specialty trauma care at the Region's Level II and III facilities. This fact has led the Council to decrease the minimum number of designated pediatric facilities to zero. Patients requiring specialty trauma care unavailable (certain methods of orthopedic injury fixation, burn care, and spinal cord injury) are promptly transferred to the Oregon Level I facilities.

c. Discuss any unfilled need for trauma services (general and pediatric) and trauma rehabilitation services in the region, and regional plans to meet these needs.

Considering the routine transport of critical pediatric patients to Oregon Level I facilities, the designated and resource trauma facilities in the Region's plan meet the needs of injured patients.

d. Identify training needs for Trauma Service and Trauma Rehabilitation Service Personnel:

1.) Include a narrative description of the trauma care workforce resources in the region including needs for additional nurses, physicians, or other providers and planned solutions.

Southwest Washington Medical Center in Vancouver, the Region's Level II facility, is a multi-campus facility that offers a wide variety of community and medical services. St. John's Medical Center, the Level III facility, is operated by Peace Health, a state-wide organization. Both hospitals have sophisticated human resources departments, and recruit actively state-wide, nationally, and internationally. Clark and Cowlitz Counties have available a large pool of nursing and allied health personnel from the Portland-Vancouver metropolitan area. The Level IV facilities in more rural areas of the Region have less support for recruiting activities, but require smaller staffs and offer a lifestyle that appeals to enough workers to meet their needs. The State's designation process ensures that all participating facilities are adequately staffed by qualified personnel.

Most of the physicians staffing emergency departments (ED) in our Level IV facilities are family practice physicians. The patient census in EDs in these smaller facilities and the economics of rural practice make dedicated emergency physicians an unaffordable luxury.

2.) Describe training resources currently available for trauma service personnel.

Facility Provided Programs

Advanced Trauma Life Support (ATLS), Trauma Nurse Critical Care, and Advanced Cardiac Life Support (ACLS) courses are available at various facilities throughout the Region. The Oregon Health Sciences University and Emanuel Hospital and Health Center regularly sponsor such courses. Both facilities are 5 to 10 minutes from Vancouver, in Portland. Last year (1999), 86 nurses, physicians, and respiratory therapists from the Region took state subsidized courses at these two facilities.

Hospitals in Clark and Cowlitz County provide trauma courses for their staff (TNCC) as well as outreach programs in Wahkiakum, Klickitat, and Pacific Counties. Oregon health facilities in The Dallas and Hood River provide ALS, ATLS, and TNCC courses for health personnel in Klickitat County.

Advanced Trauma Life Support (ATLS) programs for physicians are scarce in the Region. Emanuel Hospital, Portland, Oregon and Harborview Medical Center, Seattle, Washington, both provide ATLS courses. Despite the scarcity of these trauma courses, however, the latest survey showed that 75 percent of the emergency physicians in the Region had attended an ATLS course.

3.) Discuss remaining training needs for trauma care personnel to maintain existing level of personnel, and any planned increase in trauma care personnel within the region.

All personnel at participating in the trauma system at designated facilities have received appropriate initial training. The current and future contracts with DoH recognize that the Region will no longer pass through training funds for facility personnel. The cost of refresher trauma training for these personnel will now be borne by the facilities.

2. **Demographics:**

a. Identify specific demographics of the region that are likely to require additional designated trauma services or trauma rehabilitation services including total population of region, seasonal changes, licensed drivers, licensed vehicles, miles of roads, road or traffic conditions, current or anticipated industry.

As indicated earlier, Clark County has undergone the greatest growth of any Washington State county. Both Southwest Washington Medical Center and Legacy Emmanuel of Oregon are interested in building a new facility in north Clark County. Both providers have begun the State approval process for their proposed facilities. The State will have to decide whether such a facility is needed and, if it is needed, which provider should be permitted to build. Should a new facility be built, the Council will have to consider the affect of another designated facility in north Clark County would have on the Level II center in Vancouver and the Level III center in Longview.

3. **Designated general, pediatric and rehabilitation trauma facilities:** Regional review of recommended minimum and maximum numbers of designated trauma facilities within the region.

a. Describe the methods used by the region to establish or re-establish the recommended minimum and maximum numbers and levels and distribution of designated trauma and trauma rehabilitation services needed in the region.

WAC defines the capabilities of all levels of designated rehabilitation facilities. The Region used the same model mentioned above to determine the number and distribution of rehabilitation services. The availability of Level I rehabilitation facilities for adults and children at Oregon hospitals adjacent to the Region precludes the designation of Level I rehabilitation centers in the Region. Excepting research programs, Level II centers provide essentially the same level of patient service as Level I centers. Southwest Washington Medical Center and St. John's Medical Center are designated as Level II and III adult rehabilitation facilities respectively. The Region's PCPs standardize patient transport and transfer among the designated and recognized centers in the Region.

The closest designated pediatric rehabilitation is in Oregon.

b. Specify the region's recommendations for minimum and maximum numbers and levels of designated trauma and trauma rehabilitation services using Table C. Justify changes from previous recommendations based on identified need and distribution.

TABLE C

DESIGNATION

_Southwest___ REGION

Date:__June 30, 2001____

Min/Max Numbers for **Acute** Trauma Services

LEVEL	MIN	MAX	CURRENT STATUS
II	1	1	1
III	1	1	1
IV	3	3	3
V	1	2	0
IIP	0	1	0
IIIP	0	1	0

Min/Max Numbers for **Rehabilitation** Trauma Services

LEVEL	MIN	MAX	CURRENT STATUS
II	1	1	1
III	1	1	1

Please indicate any changes to min/max numbers by including an "*" beside the min or max number that is a change.

VI. DATA COLLECTION AND SUBMISSION

A. Data: Discuss the role the Regional EMS/TC system may have in:

1. The transition of prehospital to hospital submission of prehospital trauma data

   The Region will assist its agencies in resolving issues relating to the transition. Following clarification of the administrative power of the Region to collect data not specifically authorized by statute and administrative code, the Region modified its data collection policy to conform to State minimum standards. At minimum, Regional providers collect data on major trauma patients. Some providers collect data on a larger set of patients.

2. Assisting with improving the quality of prehospital trauma data collection through completion and submission of trauma patient run sheets to designated trauma services. (an example might be improving the method of getting dispatch times from communications centers.)

   The Region will do whatever it can to be sure that providers understand their responsibilities under the new system. When providers begin to give reports to facility trauma registrars, the Council will address problems as they arise. The Council is concerned that patients transported directly to Oregon resource facilities will not be reported to the State database.

VII. EMS AND TRAUMA SYSTEM EVALUATION (Including both prehospital and hospital components):

A. Effectiveness and Quality Assurance

1) Describe the Regional EMS/TC system's role in the EMS and trauma system quality assurance including support of trauma registry data collection and submission.. Include discussion of provider-specific QA activities within the region. Identify any issues that limit effectiveness of QA within the region.

The Department of Health, the Regional Council, and the Level I, II, and III trauma centers have the collective responsibility and authority to evaluate trauma care system in the Region. As data is collected by trauma care providers and the State, the evaluation of the trauma system should be directed toward reducing controllable (not random) variations in system quality and implementing a region-wide Quality Assessment and Improvement (QA&I) effort directed at process evaluation and improvement.

Council staff is assisting the Region QAI Committee to develop a newsletter for the regions providers, and to select appropriate filters and targets for prehospital data analysis. The Committee meets regularly for case presentation and review for review of system data.

Clark County, because of efforts by its MPD, has a robust QA&I process. The MPD in Clark County works under a contract with agencies in the County, which permits him to employ a staff necessary to collect and examine data on system performance. Agencies in other parts of the Region equate QA&I with chart reviews and complaint resolution, and engage in chart review with MPDs. In partnership with the Regional Quality Assurance and Improvement Committee, the Region is attempting to educate providers in the necessity of excellent data for effective quality measurement and improvement.

The Region is attempting to suggest a broader definition of QA&I that includes the development of system targets for performance and the measurement of system performance against these targets. Clearly, in excellent EMS systems, all personnel are engaged in QA&I. The lack of adequate prehospital data makes it difficult to describe the behavior of the system and its components.

Submitted by: Richard Konrad, Administrator ***Date 6/30/01***

Appendix 1—Southwest Region PCPs

Appendix 2—Service Area Maps